

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
10 February 2005 (10.02.2005)

PCT

(10) International Publication Number  
WO 2005/011571 A2

(51) International Patent Classification<sup>7</sup>:

A61K

(21) International Application Number:

PCT/US2004/023391

(22) International Filing Date: 19 July 2004 (19.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

10/630,070 30 July 2003 (30.07.2003) US  
10/630,074 30 July 2003 (30.07.2003) US

(71) Applicant (for all designated States except US): VACCINE RESEARCH INSTITUTE OF SAN DIEGO [US/US]; 3030 Bunker Hill Street, Suite 300, San Diego, CA 92109 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): MILICH, David, R. [US/US]; 15434 Sky High Road, Escondido, CA 92025 (US). BILLAUD, Jean-Noel [FR/US]; 13056 Signature Point, # 137, San Diego, CA 92130 (US).

(74) Agents: LEKUTIS, Chistine, A. et al.; Medlen & Carroll, LLP, 101 Howard Street, Suite 350, San Francisco, CA 94105 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/011571 A2

(54) Title: HEPATITIS VIRUS CORE PROTEINS AS VACCINE PLATFORMS AND METHODS OF USE THEREOF

(57) Abstract: The present invention relates to hepatitis virus core proteins and nucleic acids. In particular, the present invention provides compositions and methods comprising recombinant hepatitis virus core proteins or nucleic acids for use in vaccine formulations.